CREST Status Report – May 16, 2001

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Activity: Consolidated Reporting of EarthquakeS and Tsunamis (CREST)

1) **Warning Centers:** During the past 6 months there was no activity conducted at the Warnings Centers by CREST project personnel, except for support of telemetry links.

2) **Seismic Network instrumentation**: There were only a few installations of seismic instrumentation because of equipment inventories permit (see below). The inventory of seismic stations shows those installed and scheduled for installation.

AEIC: Five sites are operational and one additional site (Seward) is installed but awaits completion of communications. No installation was possible during the winter months, but site identification and permitting continued for the remaining 12 sites (see Alaska map). Installations are planned for at least 7 sites this summer, and perhaps all sites. Equipment vendor promises delivery of all sensors and data loggers in June.

ATWC: Two sites are operational (see Alaska map). Data logger for Sand Point was delivered, but we learned that telemetry costs would be ~30K/year. Consequently, the NCSN will install one of its VSAT systems at Sand Point, record the data in Menlo Park, and then transmit it to WC/ATWC via dedicated CREST circuits. It is scheduled to be installed in August 2001.

NCSN: Three sites are operational (see Pacific Northwest map). All datalogger/VSAT equipment has been delivered, but remaining 5 broadband sensors will be delivered in late June. No installation

was possible during the winter months due to weather. Installation of equipment at 7 sites will begin in early June and be completed this summer. If replacement VSAT for the Sand Point, AK arrives in time, it will also be installed.

HVO: Hawaii is fully operational (see Hawaii map). However, NPS analog microwave system within Hawaii Volcanoes National Park that carries dedicated CREST circuit is obsolete. Communication facilities are being converted to fiber optic, and trenching is scheduled to begin this summer.

PNSN: Nine sites are operational (see Pacific Northwest map). Six sites are permitted, 2 are in process, and remaining site will be permitted this summer. Most sites should be installed this year.

UO: University of Oregon installation is fully operational (see Pacific Northwest map)

UCB: Existing UCB site at Arcata was relocated inland to Jacoby Creek. Alder Springs site is still pending and hopefully will be installed this year.

USNSN: Data latency issues during large earthquakes appear to be resolved. However, new satellite switching elements installed in the spring to replace obsolete master earth-station equipment are not operating correctly. Consequently, data is being lost until a fix can be installed. Engineers are working on the problem and expect to have a temporary solution in the next few weeks. Final resolution of the problem awaits resolution of the issue with equipment manufacturer.

3) **Communications**: All links are up and continue to function. Efforts to upgrade the capacity of the Golden-to-ATWC/WC from 56kbps to 128kbps and provide a dedicated circuit from the University of Washington to the Pacific Geoscience Center network have been deferred due to funding limitations.

4) **Algorithms**: ShakeMap implementation is now complete in the PNW.

ML magnitude computation software is released.

Integration of Moment tensor code from UCB into Earthworm is still pending.